

ABSTRAK
POLA BAKTERI PENYEBAB INFEKSI PADA LUKA GANGREN
DIABETES MELITUS DI LABORATORIUM KLINIK
PRODIA PONTIANAK

Asti Annastasia¹⁾, Ariffialdi N²⁾, Suharti Nurfiyani³⁾

Politeknik ‘Aisyiyah Pontianak

E-mail: divvyayumnaadisti@gmail.com

NPP. 6171052A2000001

Luka gangren pada penderita Diabetes Melitus merupakan salah satu komplikasi yang sering disertai infeksi bakteri dan dapat memperburuk kondisi pasien. Penelitian ini bertujuan untuk mengetahui pola bakteri penyebab luka gangren penderita Diabetes Melitus di Laboratorium Klinik Prodia Pontianak.

Penelitian ini menggunakan desain deskriptif observasional dengan pendekatan *cross-sectional*. Sampel penelitian sebanyak 30 sampel kultur pus pasien Diabetes Melitus dengan luka gangren yang diperoleh menggunakan teknik *total sampling* selama periode Maret sampai Mei 2026. Data diperoleh dari hasil kultur pus dan uji kepekaan antibiotik dan dianalisis secara deskriptif dalam bentuk frekuensi dan presentase.

Hasil penelitian menunjukkan mayoritas responden berjenis kelamin perempuan (57%) dan berada pada kelompok lansia (46-65 tahun) (43%). Bakteri yang ditemukan yaitu *Staphylococcus aureus* (34%), *Escherichia coli* (30%), *Proteus mirabilis* (13%), *Klebsiella pneumoniae* (7%), *Providencia stuartii* (7%), *Morganella morganii* (3%), *Enterobacter cloacae* (3%), dan *Acinetobacter baumannii* (3%). Antibiotik dengan tingkat sensitivitas tertinggi adalah meropenem (100%). Antibiotik dengan tingkat resistensi tertinggi adalah ampicilin (100%). Kesimpulan bakteri penyebab infeksi luka didominasi oleh *Staphylococcus aureus* dan *Escherichia coli*. Antibiotik meropenem menunjukkan sensitivitas tertinggi terhadap isolat bakteri, sedangkan ampicilin menunjukkan tingkat resistensi tertinggi.

Kata kunci: Diabetes Melitus, Luka gangren, Kultur pus, Pola bakteri, Resistensi Antibiotik, Sensitivitas Antibiotik

ABSTRACT
BACTERIAL PROFILES OF INFECTION IN DIABETIC MELLITUS
GANGRENE WOUNDS AT PRODIA CLINICAL LABORATORY
PONTIANAK CITY

Asti Annastasia¹⁾, Ariffialdi N²⁾, Suharti Nurfiani³⁾

Politeknik ‘Aisyiyah Pontianak

E-mail: divyayumnaadisti@gmail.com

Gangrenous wounds in patients with Diabetes Mellitus are one of the complications that are often accompanied by bacterial infections and may worsen the patient's condition. This study aimed to determine the bacterial patterns causing gangrenous wound infections in patients with Diabetes Mellitus at Prodia Clinical Laboratory, Pontianak.

This study used a descriptive observational design with a cross-sectional approach. The study sample consisted of 30 pus culture specimens from patients with Diabetes Mellitus who had gangrenous wounds, obtained using a total sampling technique during the period from March to May 2026. Data were obtained from pus culture results and antibiotic susceptibility testing and were analyzed descriptively using frequency distributions and percentages.

results showed that the majority of respondents were female (57%) and were in the elderly age group (46–65 years) (43%). The bacteria identified were *Staphylococcus aureus* (34%), *Escherichia coli* (30%), *Proteus mirabilis* (13%), *Klebsiella pneumoniae* (7%), *Providencia stuartii* (7%), *Morganella morganii* (3%), *Enterobacter cloacae* (3%), and *Acinetobacter baumannii* (3%). The antibiotic with the highest sensitivity rate was meropenem (100%), while the antibiotic with the highest resistance rate was ampicillin (100%).

In conclusion, the bacterial pathogens causing gangrenous wound infections were predominantly *Staphylococcus aureus* and *Escherichia coli*. Meropenem showed the highest sensitivity to the bacterial isolates, whereas ampicillin showed the highest resistance rate.

Keywords: Diabetes Mellitus, gangrenous wound, bacterial pattern, antibiotic susceptibility, antibiotic resistance.